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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/878,748	06/11/2001	Keith E. Buckle	08935-247001//M-4963	2919

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225 FRANKLIN ST  
BOSTON, MA 02110

EXAMINER

OMGBA, ESSAMA

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 09/24/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/878,748

Applicant(s)

BUCKLE ET AL.

Examiner

Essama Omgba

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 1-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 16.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mansfield, Jr. et al. (US Patent 5,279,905) in view of Moriwaki et al. (US Patent 6,333,124) and Oltman (US Patent 5,945,230).

Mansfield, Jr. et al. discloses a method of making an anode can for an electrochemical cell, the method comprising attaching a copper layer to a stainless steel layer to form a multi-layered sheet, punching a disk from the multi-layered sheet, and forming the disk into an anode cup, see column 4, lines 62-68, and column 5, lines 1-4. Although Mansfield, Jr. et al. does not specifically disclose forming the disk into an anode cup by drawing, however it is known to form multi-layered anode cups by punching disks from multi-layered sheets and drawing the punched out disks into anode cans as attested by Moriwaki et al., see column 1, lines 66 and 67, column 2, lines 1-26 and column 6, lines 49-51. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have formed the anode can of Mansfield, Jr. et al. by drawing the punched out disk, in light of the teachings of Moriwaki et al., in order to improve productivity. Mansfield, Jr. et al./Moriwaki et al. does not disclose the ratio of the copper layer thickness to the stainless steel layer thickness

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to be at least .01:1 with the thickness of the drawn anode can being no more than 0.0050 inch. However Oltman teaches such ratio and thickness of drawn anode cans, see column 3, lines 39-49, column 6, lines 33-39, column 7, lines 1-67 and column 8, lines 1-6. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the multi-layered anode can of Mansfield, Jr. et al./Moriwaki et al. with a ratio of the copper layer thickness to the stainless layer thickness of at least .010:1 with the thickness of the drawn anode can no more than 0.0050 inch, in light of the teachings of Oltman, in order to provide greater strength per unit of thickness of the can. Although Oltman discloses the thickness of the drawn anode can to be up to 0.0055 inch, however it would have been obvious to one of ordinary skill in the art at the time the invention was made to have limited the thickness of the drawn anode can of Mansfield, Jr. et al./Moriwaki et al./Oltman to no more than 0.0050 inch, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Regarding the recitation of attaching a second copper layer to at least a portion of the drawn anode can, Applicant should note that post attachment of a second copper layer to at least a portion of the drawn anode can is an obvious matter of design choice wherein no stated problem is solved or unexpected results obtained in providing the required copper layer in one step as taught by Mansfield, Jr. et al. versus post attachment of a second copper layer, as long as an effective copper layer is provided on the drawn anode can. Applicant should also note that although the ration between the layers of stainless steel, copper and

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nickel are given as a function of their volume, however the volume of the different layers is directly proportional to their thicknesses, the length being constant.

***Response to Arguments***

3. Applicant's arguments with respect to claims 10-20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Essama Omgba whose telephone number is (703) 305-2915. The examiner can normally be reached on M-F (10-7:30) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on (703) 308-1513. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

eo   
September 16, 2003

